## **CLAIMS**

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A device for fixating a bone comprising:

a head portion having an injection site for removably attaching an injection device to said injection site;

a shaft portion having a plurality of threads formed there-around and terminating at a tip portion.

a cannula extending about a length of said shaft, from said injection site on said head portion into said shaft portion substantially along a center-line within said shaft portion; and at least one slot extending outwardly from said cannula.

- 2. The device in accordance with claim 1 wherein said at least one slot-comprises two slots, one which is disposed proximate said head portion, and a second which is disposed proximate said tip portion.
- 3. The device screw in accordance with claim 2 wherein said cannula has a cross sectional area and each of said slots has a cross-sectional area, wherein said cross-sectional area of said cannula is less than said cross-sectional area of each of said plurality of slots.
- 4. The device in accordance with claim 1, wherein said cannula extends from said injection site on said head portion through said shaft portion and said tip portion.
- 5. The device in accordance with claim 1, wherein said head further includes an engagement means for engaging and turning said device for insertion into a bone.
- 6. The device in accordance with claim 1, wherein said injection site further includes means for engaging and turning said device for insection into a bone.

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1	7.	The device in ac	cordance with	claim 6,	wherein	said head	portion f	urther in	ncludes an
2	indicat	or to indicate the	orientation of	at least o	ne of sai	id at least	one slot.		

- 8. The device in accordance with claim 6, wherein said head portion further includes an indicator to indicate the orientation of at least one of said at least one slot.
- 9. A bone screw for attaching to bone comprising:
- a head portion having an attachment means for attaching an injection device and an engagement means for engaging with a means for inserting said screw;
- a shaft portion having a cylindrical length, wherein a plurality of threads are formed around a threaded portion of said cylindrical length and wherein said shaft evidences at least one delivery port;
  - a tip portion, wherein said plurality of threads terminate at said tip portion.
- 10. A bone screw for attaching to bone comprising:
- a head portion having an attachment means for attaching an injection device and an engagement means for engaging with a means for inserting said screw;
- a shaft portion having a cylindrical length, wherein a plurality of threads are formed around a threaded portion of said cylindrical length;
- a tip portion, wherein said plurality of threads terminate at said tip portion; and at least one slot positioned along said shaft to aid in delivery of an injectable material to the bone.
- 11. A bone screw in accordance with claim 10 wherein said attachment means is a recess
- formed in said head portion, wherein said recess is threaded for -threadably attaching with an
- 3 injection device.

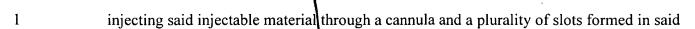
- 1 12. A bone screw in accordance with claim 10 further comprising a coupling assembly for
- 2 attaching a fixation device to said head portion of said screw.
- 1 13. A bone screw in accordance with claim 10 further comprising a cannula for delivering
- 2 said injectable material from said head portion to said slot.
- 1 14. A bone screw in accordance with claim 13 further comprising a plurality of slots, wherein
- 2 said slots extend radially outward from said cannula.
  - 15. A bone screw in accordance with claim 13 wherein said tip portion is configured with opening which communicates with said cannula.
  - 16. A bone screw in accordance vitt claim 13 wherein said top portion is closed.
  - 17. The bone screw in accordance with claim 14 wherein said slots are suitably positioned along said shaft to facilitate optimum fixation strength for the screw.
  - 18. The bone screw in accordance with claim 14 wherein said screw further includes an adapter device configured to force cement through said cannula and out of said slots.
  - 19. The bone screw in accordance with claim 14 where said screw further includes a plug for securing said cannula after insertion of an injectable material.
- 1 20. A method for securing a bone screw to bone comprising the steps of:
- drilling a pilot hole through a cortical layer of a bone;
  - inserting a bone screw through said pilot hole by turning said bone screw to engage a plurality of teeth formed on said screw with said pilot hole;
  - attaching an injection device containing injectable material to a head portion of said screw; and

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